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PATENT MAINTENANCE
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US PATENT & TRADEMARK
OFFICE

502424.114158

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: MORTENSEN, Ivan
Serial No.: 10/559,632
Filing Date: 12/01/2005
For: **REGISTRATION OF LIGHTNING STRIKE IN A WIND TURBINE**

CUSTOMER NO. 29,540

REQUEST FOR REFUND

Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

SIR:

Adjustment Date: 11/20/2006 PROOKEE
03/07/2006 PROOKEE 00000002 501145 10559632
02 FC:1616 360.00 CR

Applicant respectfully requests that the amount of \$510 charged to deposit
account 50-1145 by the USPTO in the above captioned patent application be refunded.

1407690A010410061 hereby certify that this correspondence is being deposited
with the United States Postal Service as first class mail in
an envelope addressed: Commissioner for Patents, P.O. Box
1450, Alexandria, VA 22313-1450 on April 10, 2006

Gerald Levy

Attorney

Signature

April 10, 2006

Date of Signature

The Commissioner is hereby authorized to charge any additional
fees which may be required, or credit any overpayment to
Account No. 50-1145.

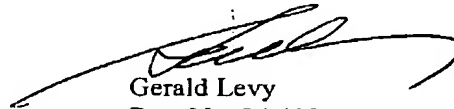
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360.00 CR

Enclosed herewith please find a copy of the Preliminary Amendment which accompanied the application at the time of filing deleting all multiple dependencies from the claims. In addition, applicant paid for the extra claims over 20 and also for the extra independent claim.

It is respectfully requested that additional fees charged to this application be refunded to our deposit account number 50-1145 (ref. 502424.114158) and advise the undersigned attorney when you have done so.

Respectfully submitted,



Gerald Levy
Reg. No. 24,419

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502424.114158

REFUND COMPLETED
PCT NATIONAL DIVISION

REFUND COMPLETED
PCT NATIONAL DIVISION

IN THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US)

Applicant: MORTENSEN, Ivan
International Application No.: PCT/DK/2004/000409
International Filing Date: 11 June 2004
Priority Date Claimed: 12 June 2003
For: **REGISTRATION OF LIGHTNING STRIKE IN A WIND TURBINE**

CUSTOMER NO. 29,540

PRELIMINARY AMENDMENT

Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Attn: DO/EO/US

SIR:

Prior to any action, kindly amend the above captioned application as follows:

EV622395195US

In the Claims:

Please amend the claims as follows:

1. (original) A method of registering at least one lightning strike in the blade (5) of a wind turbine, characterised in that the method comprises that the lightning strike is captured by a receptor (6) in the blade of the wind turbine, from where the lightning current is completely or partially conducted through at least one electric resistor (10), thereby heating it; and that the lightning strike is registered on the background of the increase in temperature of the resistance.
2. (original) A method according to claim 1, characterised in that at least one characteristic of at least one lightning strike is determined on the basis of the increase in temperature of the resistor, said characteristic comprising the amount of energy contained in the lightning strike determined on the basis of a measurement of the magnitude of the increase in temperature.
3. (currently amended) A method according to claim 1 or 2, characterised in that the point in time of the lightning strike is determined on the basis of a measurement of the point in time of the increase in temperature.

4. (currently amended) A method according to claim 2 ~~3~~, characterised in that the determination of the amount of energy contained in the lightning strike on the basis of the magnitude of the increase in temperature of the resistor is performed by use of a pre-calculated or measured ratio coefficient that defines the ratio between an increase in temperature in the electric resistor (10) and the amount of energy of the current conducted through the electric resistor (10).

5. (currently amended) A method according to claims 2 ~~4~~, characterised in that said characteristic is used as indicator for assessing the potential extent of damage made by said lightning strike in the blade (5) of the wind turbine.

6. (original) A wind energy plant (1) comprising means for grounding a lightning current, including at least one receptor (6) and at least one grounding connection (7) from the receptor to an external connection to ground (9), characterised in that the wind energy plant comprises means (16) for measuring an increase in temperature in at least one electric resistor (10), wherein the resistor (10) is connected to the receptor (6) or to the grounding connection (7) in a position between the receptor (6) and the connection to ground (9), preferably by being inserted serially in the grounding connection (7) and serially inserted between the grounding connection (7) and the receptor (6), respectively, or by being incorporated into a measurement shunt, a measuring bridge or other parallel circuit connected to the grounding connection (7) or to the receptor (6).

7. (original) A wind energy plant (1) according to claim 6, characterised in that the resistor (10) and the receptor (6) are interconnected or made integrally.

8. (currently amended) A wind energy plant (1) according to claim 6 ~~or 7~~, characterised in that the at least one electric resistor (10) is preferably arranged in the blade (5) of a wind turbine on the wind energy plant (1).

9. (currently amended) A wind energy plant (1) according to ~~claims 6-8~~ claim 6, characterised in that the wind energy plant comprises a number of receptors (6), said receptors being each connected to an external connection to ground (9); and that at least one electric resistor (10) is connected to each receptor (6) or to a grounding connection (7) between each receptor (6) and the connection to ground (9) to which the receptor is connected; and that the wind energy plant comprises means for measuring (16) an increase in temperature in each electric resistor.

10. (currently amended) A wind energy plant (1) according to ~~any one of claims 6-9~~ claim 6, characterised in that the wind energy plant comprises means for determining the amount of energy contained in the lightning strike on the basis of the magnitude of the increase in temperature.

11. (currently amended) A wind energy plant (1) according to ~~any one of claims 6-10~~ claim 6, characterised in that the wind energy plant comprises means for determining point in time of the lightning strike on the basis of the point in time of the increase in temperature.

12. (currently amended) A wind energy plant (1) according to ~~any one of claims 9-11~~ claim 9 characterised in that the wind energy plant comprises means for storing at least one of the parameters comprising the measured increase in temperature, the determined amount of energy and the determined point in time.

13. (currently amended) A wind energy plant (1) according to ~~any one of claims 9-12~~ claim 9, characterised in that means for measuring (16) the increase in temperature in the electric resistor (10) comprises an electronic thermometer comprising a thermo-element (16), which thermo-element is arranged in thermally conductive contact with the electric resistor.

14. (currently amended) A wind energy plant (1) according to ~~any one of claims 9-13~~ claim 9, characterised in that means for measuring the increase in temperature in the electric resistor (10) comprises an infrared thermo-sensor and a camera for infrared recording, respectively, means for measuring a temperature-related change in resistance in the electric resistor, a non-touch temperature sensor, an optical fibre or some other kind of equipment for measuring an increase in temperature.

15. (currently amended) A wind energy plant (1) according to ~~any one of claims 6-14~~ claim 6, characterised in that at least the electric resistance (10) is essentially enshrouded in thermally insulating material (11).

16. (currently amended) A wind energy plant (1) according to ~~any one of claims 6-15~~ claim 6, characterised in that the wind energy plant comprises means (12) for monitoring and storing registrations of lightning strikes, including optionally also characteristics of lightning strikes, said means comprising a computer unit arranged in direct or wireless connection with means (16) for measuring the increase in temperature, said computer unit being preferably arranged in or at the wind energy plant, including in the blade (5) of a wind turbine.

17. (currently amended) A wind energy plant (1) according to ~~any one of claims 6-16~~ claim 6, characterised in that the wind energy plant comprises means of alerting or halting the wind energy plant at a given increase in temperature in the resistor (10).

18. (currently amended) A wind energy plant (1) according to ~~any one of claims 6-17~~ claim 6, characterised in that the wind energy plant comprises means for dispatching an electronic message, said message comprising data relating to the increase in temperature.

19. (currently amended) A wind energy plant (1) according to ~~any one of claims 6-18~~ claim 6, characterised in that the wind energy plant comprises means for registering a lightning current, including a lightning registration card comprising at least one magnet strip.

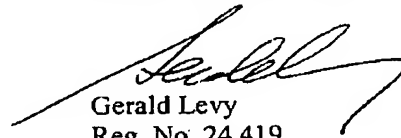
20. (original) A system (8) for use in the registration of at least one lightning strike in the blade of a wind turbine, said system comprising means for grounding a lightning current, including at least one receptor (6) for mounting in the blade (5) of the wind turbine, and at least one lightning grounding cable (7) coupled to the receptor (6), characterised in that the system comprises means (16) for measuring an increase in temperature in at least one electric resistor (10), wherein the at least one resistor is adapted to be coupled to the lightning grounding cable (7) or to the receptor (6) and be inserted between the lightning grounding cable (7) and the receptor (6), respectively, in such a manner that the resistor will be heated by a lightning current.

REMARKS

The present amendment is being submitted herewith for purposes of placing the claims in a format more consistent with U.S. practice and to avoid multiple dependencies in the claims. No new matter has been added.

Early action on the merits is now respectfully requested.

Respectfully submitted,



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